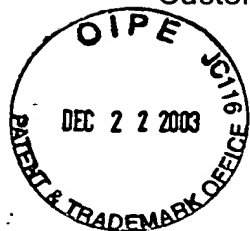


Customer No. 020991



RECEIVED

DEC 29 2003

Technology Center 2600

Patent
PD-200101

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
DONALD C. D. CHANG, et al.

Serial No. 09/661,725

Filed: September 14, 2000

For: STRATOSPHERIC-BASED
COMMUNICATION SYSTEM FOR
MOBILE USERS USING ADDITIONAL
PHASED ARRAY ELEMENTS FOR
INTERFERENCE REJECTION

: Date: December 18, 2003

: Group Art Unit: 2683

: Examiner: Torresw, Marcos L.

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. 1.97(c)
WITH PAYMENT OF FEE UNDER 37 C. F.R. 1.17 (p)

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

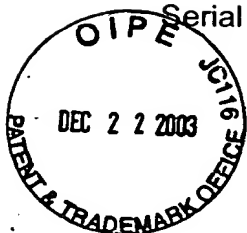
Dear Sir:

The attention of the Office is drawn to the references listed on the accompanying PTO-1449 form (copies enclosed).

This Information Disclosure Statement is not to be construed as a representation that a search has recently been made, that additional information material to the examination of this application does not exist, or that this citation constitutes prior art.

12/24/2003 EAREGAY1 00000091 500383 09661725

01 FC:1806 180.00 DA



PAYMENT OF FEE SET FORTH IN § 1.17 (p)

Please charge Deposit Account No. 50-0383 of Hughes Electronics Corporation, El Segundo, California, in the amount of \$180.00. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to that account. **This form is being submitted in duplicate.**

Respectfully submitted,
DONALD C. D. CHANG, et al

By: Vijayalakshmi D. Duraiswamy
Vijayalakshmi D. Duraiswamy
Attorney for Applicant
Registration No. 31,505

Enclosure: Form PTO-1449 w/references
HUGHES ELECTRONICS CORPORATION
RE/R11/A109
P.O. Box 956
El Segundo, CA 90245-0956
(310) 964-0733

CERTIFICATE OF EXPRESS MAILING (37 CFR 1.10)

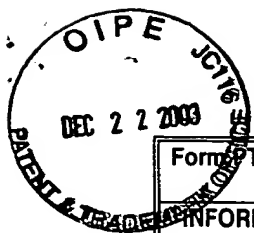
EH187376095US
EXPRESS MAIL mailing number

December 18, 2003
Date of Deposit

I hereby certify that this Correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 On the date indicated above and is addressed to: Mail Stop Non-fee amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, Va 22313-1450.

Eileen T. Haderl
Typed or printed name of person
Mailing correspondence

Eileen T. Haderl
Signature of person
mailing correspondence



Form PTO-1449	Serial Number: 09/661,725	Docket PD-200101
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant DONALD C. D. CHANG ET.AL
(Use several sheets if necessary)	Filing Date September 14, 2000	Group 2683

U.S. PATENT DOCUMENTS

	Document Number	Date	Name	Class	Sub Class
	3,720,953	03/13/73	Ajioka		
	4,343,005	08/03/82	Han et al.		
	4,635,063	01/06/87	Chang et. al		
	4,799,065	01/17/89	Thompson		
	5,017,927	05/21/91	Agrawal et. al		
	5,077,562	12/31/91	Chang et. al		
	5,151,706	09/29/92	Roederer et al		
	5,584,047	12/10/96	Tuck		
	5,589,834	12/31/96	Weinberg et al.		
	5,612,701	03/18/97	Diekelman		
	5,732,351	03/24/98	Olds et al.		
	5,734,982	03/31/98	Endo et al.		
	5,754,139	05/19/98	Turcotte et al.		
	5,764,187	06/09/98	Rudish et al.		
	5,862,480	01/19/99	Wild et al.		
	5,890,067	03/30/99	Chang et al.		
	5,894,590	04/13/99	Vatt et al.		

RECEIVED
DEC 29 2003
Technology Center

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Sub Class
	EP 0 549 220 A2	06/30/93	EPO		
	EP 0776 099 A2	05/28/97	EPO		
	EP 0 860 952 A	08/26/98	EPO		
	EP 0 961 416 A1	12/01/99	EPO		
	EP 1 026 778 A	08/09/00	EPO		
	EP 1 139 583 A2	10/04/01	EPO		
	EP 1 148 662 A2	10/24/01	EPO		
	EP 1 152 552 A2	11/07/01	EPO		
	GB 2 349 045	10/18/00	Great Britain		
	JP 11 261474 A	09/24/99	Japan (believed to correspond to USP 6,308,085)		
	WO 00/14902 A2	03/16/00	WIPO		
	WO 01/95220 A2	12/13/01	WIPO		
	WO 01/95523 A3	12/13/01	WIPO		

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

	Suzuki, R. et. al. : "Mobile TDM/TDMA System With Active Array Antenna", Global Telecommunications Conference, 1991; Globecom '91, vol. 3, Dec. 2-5, 1991, pp. 1569-1573.
	Chiba, Isamu et. al. "Digital Beam Forming (DBF) Antenna System for Mobile Communications", IEEE AES Systems Magazine, Sept. 1997, pp. 31-41.
Examiner	Date Considered



Form PTO-1449	Serial Number: 09/661,725	Docket PD-200101
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Applicant DONALD C. D. CHANG ET.AL	
(Use several sheets if necessary)	Filing Date September 14, 2000	Group 2683

U.S. PATENT DOCUMENTS

	Document Number	Date	Name	Class	Sub Class
	5,907,816	05/25/99	Newman et al.		
	5,909,470	06/01/99	Barratt et al.		
	5,917,447	06/29/99	Wang et. al		
	5,946,625	08/31/99	Hassan et al.		
	5,966,371	10/12/99	Sherman		
	5,973,647	10/26/99	Barrett et. al		
	5,974,317	10/26/99	Djuknic et al.		
	5,982,337	11/ 09 /99	Newman et al		
	6,016,124	01/ 18 /00	Lo et al.		
	6,016,421	01/18/00	Weiss et al.		
	6,018,316	01/25/00	Rudish et al.		
	6,020,845	02/01/00	Weinberg et al		
	6,023,463	02/ 08/00	Wiedeman et al.		
	6,047,186	04/04/00	Yu et al.		
	6,061,562	05/09/00	Martin et al.		
	6,088,341	07/11/00	Hinedi et al.		

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Sub Class
	WO 02/058186 A2	07/25/02	WIPO		
	WO 02/058272 A2	07/25/02	WIPO		
	WO 02/058273 A2	07/25/02	WIPO		
	WO 97 07609 A	02/27/97	WIPO		

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

	Miura, Ryu et. al, "A DBF Self-Beam Steering Array Antenna for Mobile Satellite Applications Using Beam-Space Maximal-Ratio Combination", IEEE Trans. On Vehicular Technology, vol. 48, no. 3, May 1999, pp. 665-675.
	Colella, Nicholas J. et al., "The HALO Network™", IEEE Communications Magazine, June 2000, pp. 142-148.
	Colella, Nicholas J. et al., "High Speed Internet Access via Stratospheric HALO Aircraft", INET 99 Proceedings, Internet Society, Technology, Wireless, 13 pages, June 8, 1999.
	Colella, Nicholas, "HALO Network - The Birth of Stratospheric Communications Services & the Decline of Satellite Networks", http://www.angelhalo.com/techpaper6 . Copyright 1997-1999.
Examiner	Date Considered



Form PTO-1449	Serial Number: 09/661,725	Docket PD-200101
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Applicant DONALD C. D. CHANG ET.AL	
(Use several sheets if necessary)	Filing Date September 14, 2000	Group 2683

U.S. PATENT DOCUMENTS

	Document Number	Date	Name	Class	Sub Class
	6,147,658	11/14/00	Higashi et. al		
	6,157,811	12/05/00	Dent		
	6,160,994	12/12/00	Wiedeman		
	6,167,263	12/26/00	Campbell, J. Scott		
	6,188,896 B1	02/13/01	Perahia et al.		
	6,240,072 B1	05/29/01	Lo et al.		
	6,289,004 B1	09/11/01	Mesecher et al.		
	6,308,085 B1	10/23/01	Shoki		
	6,324,398 B1	11/27/01	Lanzerotti et al.		
	6,339,708 B1	01/15/02	Wang		
	6,343,205 B1	01/29/02	Threadgill et al.		
	6,366,256 B1	04/02/02	Ramanujam et al.		
	6,388,615 B1	05/14/02	Chang et al.		
	6,392,611 B1	05/21/02	Smith et al.		
	6,434,384 B1	08/13/02	Norin et al.		
	6,452,962 B1	09/17/02	Linsky et al.		
	6,456,846 B2	09/24/02	Norin et al.		
	6,463,282 B2	10/08/02	Norin et al.		
	6,463,294 B1	10/08/02	Horna et al.		
	6,507,314 B2	01/14/03	Chang et al.		

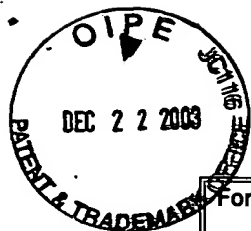
RECEIVED
DEC 29 2003
Technology Center

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Sub Class

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

	Djuknic, Goran et al., "Establishing Wireless Communications Services via High-Aeronautical platforms: A Concept Whose Time Has Come?" IEEE Communications Magazine, 9/1997, pp. 128-135.
	Martin, James N. et al., "HALO Network - The Cone of Commerce", http://www.angelhalo.com/techpaper2 , copyright 1997-1998.
	Martin, James N. et al., "HALO Network - Broadband Wireless Services from High Altitude Long Operation (HALO) Aircraft", http://www.angelhalo.com/techpaper2 , copyright 1997-1998.
	Akyildiz, Ian F. et al., "HALO (High Altitude Long Operation): A Broadband Wireless Metropolitan Area Network", IEEE International Workshop on Mobile Multimedia Communications, 11/1999, pp. 271-275.
Examiner	Date Considered



Form PTO-1449	Serial Number: 09/661,725	Docket PD-200101
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Applicant DONALD C. D. CHANG ET.AL	
(Use several sheets if necessary)	Filing Date September 14, 2000	Group 2683

U.S. PATENT DOCUMENTS

	Document Number	Date	Name	Class	Sub Class
	6,598,014 B1	07/22/03	Rabideau et al.		
	6,615,024 B1	09/02/03	Boros et al.		
	US2001/0038342 A1	11/08/01	Foote		
	US2001/004604 A1	06/21/01	Toshimitsu et al.		
	US 2002/0006795 A1	01/17/02	Norin		
	US 2002/0126042 A1	09/12/02	Chang et al.		
	US 2002/0128044 A1	09/12/02	Chang et al.		
	US 2002/0128045 A1	09/12/02	Chang et al.		
	US 2002/0132643 A1	09/19/02	Chang et al.		
	US 2002/014062 A1	10/03/02	Chang et al.		
	US 2002/0168991/A1	11/14/02	Kochanski et al.		
	US2003/0076258A1	04/24/03	Chang et al.		
	S. No. 09/661,986	09/14/00	Rosen et al.		

RECEIVED

DEC 29 2003

Technology Center 2600

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Sub Class

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Examiner	Date Considered	